Persistent Coughs Are a Red Flag: Tuberculosis Has Not Been Eradicated

Be Careful of Prolonged Coughs

Tuberculosis (TB) has not been eradicated. It continues to spread around the world, particularly in developing countries. The disease is transmitted when a person with an active form of TB coughs or sneezes and expels droplets containing *Mycobacterium tuberculosis* ("*M. tuberculosis*," the bacteria that causes TB), and these droplets are inhaled by people nearby.

Initial symptoms include coughs, sputum, and fever; infected people may also cough up blood, experience loss of appetite, weight loss, and night sweats. If you have a cough that lasts longer than two weeks, please visit your local hospital, clinic, or other medical facility to receive a check-up.

However, in some cases TB shows no symptoms. Please ensure you receive a medical checkup that includes a chest x-ray once a year at your place of work, or at your local healthcare center.

The Difference Between "Latent TB Infection" and "TB Disease"

Ordinarily, even when a person inhales *M. tuberculosis*, most of the mycobacteria are killed by the immune system in the nose and throat. Infection occurs when the mycobacteria reach and replicate in the inner lungs. If an infected person shows no symptoms, the TB is said to be "latent." Latent TB infection (LTBI) cannot be transmitted.

"TB disease" occurs when *M. tuberculosis* replicate inside the body of an infected person and cause illness. People susceptible to TB disease include those who have recently been infected, and those with weakened immune systems. It is thought that between 10% and 20% of people infected with *M. tuberculosis* develop TB disease. During the initial stages of TB disease, the patient's sputum or cough droplets do not contain *M. tuberculosis*. However, as the disease progresses, mycobacteria enter sputum and cough droplets, resulting in the possibility of transmission.

TB disease typically develops within between six months and two years of infection. In some cases, however, it does not develop until decades after infection.

Treating TB: Long-Term Treatment Combining Several Types of Medication

Patients who have been diagnosed with TB are required to take oral medication.

Patients are required to take three or four types of medication effective against *M. tuberculosis* for more than six months. Depending on their symptoms and progress of the disease, patients may even be required to continue medication for more than a year. Taking several types of medication every day over an extended period of time

prevents the development of resistant strains of mycobacteria, and reduces the risk of the disease recurring. It is therefore vital that patients follow the prescribed regimen of medication to completion. If you are worried about your medication, please consult your physician. It is extremely important you do not stop taking medication without consulting your physician.

Medical Checkups for Close Contact Persons

In order to discover people with LTBI or TB disease as early as possible, healthcare centers conduct medical checkups on close contact persons of patients—including their families, friends, and colleagues. The likelihood of infection depends on the symptoms of the patient, the age of the close contact person, and the scale of the contact. The healthcare center will schedule a medical checkup where necessary.

Even when a medical checkup shows a close contact person to have LTBI, the close contact person may be required to take medication to prevent the development of TB disease.

Post-TB Diagnosis Process

1. In accordance with Japanese law, a physician who diagnoses a case of TB is required to immediately notify the local healthcare center.
2. Healthcare center staff will then visit and interview the patient, provide explanations regarding TB treatment and public funding for medical expenses, and offer support.
3. In some cases, the healthcare center may carry out medical checks on close family, friends, and colleagues of the patient. If the patient has TB disease, they may have infected close contact persons. Conversely, the patient may themselves have been infected by a close contact person with TB disease.

If you have any concerns regarding TB, please contact your local healthcare center.